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ABSTRACT

The research described in this proposal is aimed at understanding the dynamics of an alternative social institution, the nature of the behavior of various role-groups involved in it, and the effects of this involvement on these participants. The alternative institution being studied is an experimental "high school without walls" operating within the Chicago Public School System (Metro High School). The major role groups being studied are students, full-time teachers, administrators, and consultants to the program. This research program (called the Metro research program in this proposal) has as its two broad concerns (1) to document the beliefs, attitudes, and skills of program participants and the realities of social process that they confronted in developing the alternative public school program and (2) to examine the relationship between social background and the processes and outcomes of education in this alternative educational institution. This document provides specific examples of the types of data collected, empirical generalizations based on this data, and possible policy implications of the research findings. It also illustrates how the two general concerns--functional analysis of the institution and the effect of social background on student behavior--were integrated into the analysis of this particular topic. (Author/EA)

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ED 084645

A PROPOSAL FOR COMPLETION OF RESEARCH ON THE DEVELOPMENT OF AN ALTERNATIVE SCHOOL

Center for New Schools
431 South Dearborn/Suite 1527
Chicago, Illinois 60605

November 1971

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This proposal for funding should be considered in conjunction with Student Involvement in Decision-making in an Alternative High School: A Preliminary Analysis. The analysis of student involvement presents a specific indication of the research data collected and the nature of the final products of the research program.

Center for New Schools is a not-for-profit corporation established to conduct basic research on the processes involved in developing alternative schools and to provide technical assistance to groups who wish to establish new schools. The three co-principal investigators for the Metro research program are the executive associates for Center for New Schools. We have helped plan, carry out and evaluate fifteen experimental school programs. For the past two years we have worked together as the key planners, consultants and researchers to the Metro High School, an experimental "high school without walls" operating within the Chicago Public School System. We are currently planning an experimental schools network in Illinois for the Superintendent of Public Instruction.

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1. Specific Nature of the Research Program

The research described in this proposal is aimed at understanding the dynamics of an alternative social institution, the nature of the behavior of various role-groups involved in it, and the effects of this involvement on these participants. The alternative institution being studied is an experimental "high school without walls" operating within the Chicago Public School System (Metro High School). The major role groups being studied are students, full-time teachers, administrators, and consultants to the program.

This research program (called the Metro research program in this proposal) has two broad concerns. The first concern is expressed by Merton (1968) as follows:

> Any attempt to eliminate an existing social structure without providing adequate alternative structures for fulfilling the functions previously filled by the abolished organization is doomed to failure....To seek social change, without due recognition of the manifest and latent functions performed by the social organization undergoing change is to engage in social ritual rather than social engineering....it is assumed that there are certain functions which are indispensible in the sense that unless they are performed the society (or group or individual) will not persist....
>
> The range of variation in the items which can fulfill designated functions in a social structure is not unlimited....The interdependence of the elements of a social structure limits the effective possibilities of change or functional alternatives.

Merton argues then that certain institutional functions must be carried out for any organization to survive and that the structures that might potentially fulfill these functions are limited. Merton's application of functionalist theory to attempts at social change provides a provocative backdrop for the attempt to create an "entirely new type of institution" that is being studied. One broad goal of the research

program has been to document the beliefs, attitudes, and skills of program participants and the realities of social process that they confronted in developing the alternative public school program.

A second overriding concern of the research program is suggested by investigations that document a close relationship between a student's behavior in almost every aspect of a school program and his social background. (These studies are summarized in a recent review article by Getzels [1969]). For example, Hollingshead (1949) documents the fact that "the social behavior of adolescents (in a Midwestern town) is functionally related to the position their families occupy in the community's social structure;" Coleman, et al., (1965) find a close relationship between social background and school achievement in a national study; and Kahl (1953) indicates that vocational aspiration and related educational decisions are closely tied to family values that reflect social position. Our second general concern has been to examine the relationship between social background and the processes and outcomes of education in this alternative educational institution.

These two general concerns were applied to fifteen specific topics that were studied in the developing alternative school:

1. Development of the school's goals: origins, modification of goals in practice, outcomes related to goals.

2. Cognitive outcomes of the program after 1 1/2 years and their relationships to process. Basic skills, skills for independent learning, knowledge of the city, vocational knowledge.

3. Affective outcomes and their relationships to process: image of self, sense of control, interpersonal relationships.

4. Successful classroom practices: structure of classes, strategies for promoting independent learning, student-teacher negotiations, integration of skills in learning units.

5. Changes in teacher role in the developing institution: integration of responsibilities for counseling, teaching, curriculum planning, development of outside courses, decision-making.

6. Internal staff cooperation: staff's development of procedures for decision-making and implementation, cooperative teaching, mutual support.

7. Approaches to counseling: teacher as group leader in counseling groups, counseling students with personal problems, counseling students for responsibility within the Metro program.

8. Student-teacher relationships: varieties of learning relationships, relationships outside of classes.

9. Student involvement in institutional decision-making: influences of student and staff attitudes and skills, institutional constraints.

10. Student involvement in personal academic decisions: selection of course of study, involvement in policy decisions within courses, choice of individual projects.

11. Use of community resources for learning: varieties of resource use, characteristics of effective learning experiences, school-community conflicts.

12. Communications within the institution: formal and informal communication patterns, breakdowns in communications.

13. Administrative support and procedures: leadership patterns, nature and effects of administrative procedures.

14. Dynamics of intergroup relations: race and class relations, patterns of friendship cliques.

15. Relationship with the school system: origins of the innovation, problems, strategies for dealing with bureaucracy.

These topics of study were chosen in light of the stated goals of the program, the alternative educational approaches that the program attempted to carry out, the characteristics of staff and students as they became apparent in the early operation of the program, and the issues of program implementation that became apparent in early operation.

To explore the two general areas of concern and fifteen specific topics discussed above, we employed five major research methods:

1. Paper and pencil questionnaires and achievement tests administered to two experimental groups of Metro students and one group of control students who applied to Metro but were not admitted in the random selection process.

2. In-depth interviews administered to a stratified random sample of 32 Metro and 16 control students at the beginning of the program and after 1 1/2 years of operation (referred to as the Subsamples).

3. Observations and informal interviews focusing on the Subsample students in all major formal and informal contexts in the Metro program.

4. Extensive participant observation and informal interviews focusing on issues and contexts within the program rather than on particular individuals. Includes critical events in the school's development.

4. Short structured interviews (mini-interviews) with random samples of students stratified by race and sex. Conducted periodically and especially during periods of controversy within the school.

5. A nearly complete file of documents that have been produced in the school including meeting reports and agendas, position papers, notices, correspondence, etc.

A preliminary analysis of one topic under investigation--student involvement in institutional decision-making--has recently been completed.[1] This document provides specific examples of the types of data collected, empirical generalizations based on this data, and possible policy implications of the research findings. It also illustrates how our two general concerns--functional analysis of the institution and the effect of social background on student behavior--were integrated into the analysis of this particular topic.

[1] Student Involvement in Decision-making in an Alternative High School: A Preliminary Analysis. Center for New Schools, 1971.

In most instances, information about a specific research topic has been collected using each of the five major research methods. Our attempt has been to combine quantitative and qualitative methods to provide a fuller perspective on the phenomena under study. Our aim is that these five methods ultimately complement one another in a manner described by Hollingshead (1949):

> The statistics may be viewed as the skeleton on which the muscles and skin of the narrative are spread. The poignant remarks of Elmtowners tell a story that the statistics cannot. On the other hand, the statistics present a comprehensive picture of a specific phase of behavior for the whole group. The two are blended in the text so that each supplements the other to give meaning and force to the report.

The particular strengths of each method in the total research program are discussed in the next section.

II. Design and Method

As indicated in the Introduction, there are five basic methods of data collection being employed in the Metro research program. A more detailed consideration of each method will also clarify the overall design of the study. Specific examples of data collected using each of these methods is presented in Student Involvement in Institutional Decision-making in an Alternative High School: A Preliminary Analysis, Center for New Schools, 1971.

1. Attitude and Achievement Questionnaires administered to Metro students and their controls: The diagram in Appendix C indicates the overall design of this aspect of the research. From the initial pool of applicants to Metro, 110 freshmen and 110 controls were selected on a random basis. These two groups were tested in February 1970 when the program began and again in June 1971. They are referred to as, respectively, Experimental Sample I and Control Sample I. Experimental Sample I was also given achievement tests and a short questionnaire in June 1970. A second group of Metro students (Experimental Sample II) were admitted to Metro in September 1970. They received the same achievement and attitude questionnaires at that time and were retested in June 1971. No control group was formed for comparison with Experimental Sample II.

The two major instruments employed in this part of the research were selected and developed as follows:

a. STEP Achievement Tests: This achievement testing reflects the concern of the Metro program that students develop fundamental competence in reading and mathematics. The tests employed are modifications of the Sequential Tests of Educational Progress (STEP Tests) developed by the Educational Testing Service

for the Equality of Educational Opportunity Survey (Coleman, et al., 1965). The use of these tests is desirable in view of information on the national sample of students who took the tests in the Coleman survey.

b. Student Information and Opinion Questionnaire: The purpose of this questionnaire is to gain information about students' backgrounds and about their attitudes in a number of areas in which the Metro program hopes to exert some influence. To develop this test instrument, we completed the following steps:

(1) Clarification of areas to be covered, based on program goals.

(2) Gathering of test instruments previously used to tap these dimensions.

(3) Revision of instruments judged appropriate and development of our own instruments where no appropriate ones were available.

(4) Preparation of a trial testing package, and trial administration with 16 students.

(5) Question-by-question review of test items with these students to gain their perceptions of what was being asked, what questions seemed phoney, etc.

(6) Preparation of final testing instrument.

The final version of the Student Information and Opinion Questionnaire seeks to probe these areas:

(1) Background information concerning the student and his family (based on Coleman, 1966; Kandel and Lesser, 1969).

(2) Image of self (based on Gordon, 1969).

(3) Independent learning skills (our own scale).

(4) Cross-racial contact (based on Wilson, 1970).

(5) Vocational knowledge (our own scale).

(6) Perceived climate of previous school (our own scale, based on the general approach of Stern, 1960).

(7) Parental relationships (based on Kandel and Lesser, 1969).

2. In-depth Interviews administered to Subsamples of Metro and Control students. As the figure in Appendix C indicates, a subsample of students was drawn from Experimental Sample I, Experimental Sample II, and Control Sample I for more intensive study. Experimental Subsample I and Control Subsample I were interviewed in depth in Spring 1970 and June 1971. Experimental Subsample II was interviewed in September 1970 and June 1971. Subsample students were selected through a stratified random sampling procedure, with race and sex as the two stratifiying factors. Thus, each subsample contained four white males, four white females, four black males and four black females.

The major source of questions in the interview schedule is a longitudinal study of black adolescent males by Rosenthal (1969). We employed those questions that were relevant to the topics of our research program and modified them accordingly. We also based particular sections on our own work and on the work of other investigators who had developed instruments in specific pertinent areas (for example, a projective technique using pictures of school situations (Yanofsky, 1969) to measure attitudes toward school).

The procedures for the development of the interview schedule and its administration were as follows.

a. Development of a trial interview schedule.

b. Trial testing with six interviewers and 10 subjects.

c. Revision of the interview schedule on the basis of feedback from the trial activities.

d. Analysis of two trial interviews with interviewers chosen to conduct subsample interviews.

e. Administration of the final interview schedule by the four interviewers chosen to do the interviewing. Interviewers are matched with subjects on the basis of race and sex.

The final interview seeks to tap the following areas:

a. Sense of control of environment.

b. Image of self.

c. Cross-group contact and attitudes.

d. Aspirations and future life.

e. Previous school experience and attitudes toward school.

f. Peer and parent relationships.

g. Perceptions of local neighborhood and the city.

3. Participant Observation and Informal Interviews: As Bruyn (1966) has pointed out, each methodological approach represents a trade-off between certain strengths and certain weaknesses. The Information and Opinion Questionnaire can be analyzed quantitatively using established statistical techniques, and the structured In-depth Interviews can be subjected to content analysis. One can make generalizations from these results to appropriate populations with some confidence since subjects were randomly selected. On the other hand, the process of testing or interviewing subjects out of the context of the on-going program may seriously distort the phenomena one is trying to study.

The particular strengths of participant observation and informal interviewing as research methods have been documented by researchers in a number of disciplines

(for example, Spindler, 1963; Bruyn, 1966; and Glaser and Strauss, 1967). The Metro research program employed these techniques extensively to complement quantitative approaches.

One aspect of our participant observation and informal interviewing was focused on Experiment Subsamples I and II (totaling 32 students). Subjects were observed in all formal and informal contexts in the program to supplement the understanding of them gained through questionnaires and formal interviews. A second aspect of this portion of the study was aimed not at individuals, but at contexts and issues within the program. All significant program contexts were studied extensively, including classes, student lounges, study areas, staff office areas, leisure time activities in the city, committee meetings, counseling groups, all-school meetings, and staff meetings. Issues studied intensively were aspects of the fifteen specific topics of the research program (e.g., decision-making, student-teacher planning in classes, patterns of communication).

In developing appropriate methods for participant observation and informal interviewing, several methods were tested varying along a continuum of structure. In the early stages of the program, it was decided that a semi-structured approach was most appropriate for our purposes. Certain major areas of emphasis were defined (the fifteen topics that became the primary focus for our research). Observers focused primarily on information pertinent to one of these topics, but were free to record information on other topics they felt were particularly important to understanding the specific context they were observing. The basic unit that was recorded has been designated a "behavior-episode," i.e. an event dealing with a

particular topic. In refining this semi-structured approach, suggestions by Scott (1965) have been particularly useful.

Since much of the information presented in Student Involvement in Institutional Decision-making in an Alternative High School: A Preliminary Analysis is based on the data from participant observation and informal interviewing, the reader can gain a specific understanding of the method and the resulting data by reading that report.

4. Mini-interviews: In the early stages of the research program, the research team felt a need for a structured technique for data collection that could be carried out and analyzed quickly. The approach is called the mini-interview. The following set of steps were developed for the mini-interview process:

a. Program participants are consulted to find out what issues are of concern to them at that particular time. These issues are formulated in four or five specific questions, influenced somewhat by the priorities of the research program.

b. Short interviews are carried out with a stratified random sample of students. Race of interviewer and interviewee are matched. Notes are taken on responses and transcribed more fully immediately after the interview. Tape-recordings are not used because of the time required for tape transcription.

c. An analysis of the responses is prepared based on an informal content analysis of student responses.

d. The analysis, along with the interview protocols, are presented in sessions with students and staff.

As these procedures indicate, the mini-interview is useful as a formative evaluation technique. In addition, it complements other methods used to investigate the topics of the research program by combining a structured research design with the topicality generally obtained only through qualitative methods.

5. Document File: A file of approximately 4000 documents has been indexed by major subject(s), source, and date in light of the topics of study in the research program. The document file provides still another perspective on the issues in the developing school that can be subjected to qualitative analysis along with participant observations and informal interviews.

III. Steps to be Taken in Completion of Data Preparation and Analysis

Current Status: Appendix A provides a detailed description of the steps that have been completed in the research program and those that remain to be completed. Briefly, work completed with reference to each of the five major research methods is as follows:

1. Achievement and Attitude Questionnaires: All data has been collected. Approximately half the data has been key-punched for computer analysis.

2. In-depth Interviews: All data has been collected. 32 of 96 interviews have been transcribed.

3. Participant Observations and Informal Interviews: Each behavior-episode has been classified according to topic(s) on a computer card. A preliminary analysis has been carried out of data dealing with student involvement in institutional decision-making.

4. Mini-Interviews: Five sets of mini-interviews have been fully transcribed and preliminary written analyses have been prepared.

5. Document File: The classification of all documents as to topic, source, and date is in process.

Steps to be Completed in Data Coding and Analysis: Specific steps for the completion of data analysis are also indicated in Appendix A.

1. Achievement and Attitude Questionnaires: The remainder of the achievement Tests and Attitude Questionnaires must be key-punched. Then, attitude test instruments will be analyzed to develop reliable subscales and factors using the Test Score and Statistical Analysis, Version 2 Computer Program (TSSA2). Finally, both the attitude and achievement data will be analyzed to determine characteristics of students when the program began and differential program effects between Experimental and Control groups and between subgroups in the student body. The basic statistical procedure for the analysis of program effects will be multivariate analysis of covariance using the MESA 98 Computer Program developed at the University of Chicago. In addition to explicating characteristics of students and program effects, a further result of this analysis will be a set of refined test instruments for subsequent use in research and evaluation.

2. In-depth Interviews: The transcription of two-thirds of the interviews must be completed. Then, a preliminary analysis of transcripts will be carried out to develop categories for content analysis concerning the 15 main research topics in the interviews. After rules for categorizing student responses have been developed, raters who have not previously been involved in the research program will be employed to carry out the final content analysis using approaches suggested by Berelson (1952). Before they begin the analysis, preliminary training and pretesting of rating schemes will be used to develop adequate levels of interjudge reliability. This analyses will be carried out to determine student characteristics when they entered the program, perceptions of the program, and differential effects between Experimental and Control groups and between different subgroups of students in the program.

3. Participant Observation and Informal Interviews: A computer-based indexing system for behavior-episodes has already been developed. This system will be modified and expanded using Information Retrieval System 104 developed by Computer Corporation of America. As explained later, this information system will ultimately incorporate all aspects of the research data.

   Scott (1965) and Bruyn (1966) provide methodological guidelines to the collection and analyses of qualitative data that have been incorporated into the Metro research program. They include establishment of rapport with all role-groups, exploration of all relevant settings, analysis of variability over time, analysis of variability between subgroups, seeking out negative evidence to tentative hypotheses, and classifying the amount of evidence supporting various generalizations.

   In addition to using these guidelines for analysis, we will cross-check qualitative data with the results of other aspects of the research, determining which generalizations are consistently supported using all methods and how discrepancies in results between methods can be explained.

4. Mini-interviews: The mini-interviews have been transcribed from notes. The topics treated in responses will be incorporated into the information retrieval system so that results dealing with any particular topic can be compared with results from other research approaches.

5. Document File: The document file, which is now being classified by topic, will also be indexed in the information retrieval system. It will be analyzed in connection with the participant observation material using the same methodological procedures. It will also serve as a basis for developing a narrative history of the program.

IV. Implications of the Study

When the research program is completed, it will constitute a substantial contribution to knowledge in the social sciences and will have a number of important practical implications as well.

Basic Research Implications: As a contribution to the social sciences, the research on Metro High School is highly pertinent to several major fields of study. In the study of organizations, Bidwell (1965) summarizes past research concerning the organizational structure of schools. Almost no studies have been completed that include an analysis of the student's role in the school organization, and those schools that have been studied have been almost entirely traditional in their orientation. Further, recent organization theory on widespread participation in organizational decision-making (for example, Likert, 1961; McGregor, 1966) has not been followed up empirically with reference to educational organizations.

Concerning the attempt to apply anthropological approaches to schooling, Spindler (1963) makes the following comment: "Probably the most substantial contribution that anthropology could make to education would be the building of a body of case materials based upon direct observation in educational situations...." As indicated in the first section, the general concerns of the study and its research techniques have been heavily influenced by what Spindler calls the "configurative functional approach" of anthropology. The completed study of Metro High School will be the sort of ethnography of a specific educational setting that Spindler suggests.

Another (closely related) area of social science research to which the Metro study will contribute is the growing body of information that traces the connection between social background and performance in school. Despite the proliferation of studies in this area in the last decade, most have been concerned only with a single output (tested achievement), have neglected the study of educational process, and have been carried out in traditional schools. The emphasis of the Metro study on the relationship of process to outcomes, on the study of multiple outcomes, on an alternative rather than traditional school begin to correct some serious limitations of past research in this area.

The Metro research program will also yield important information concerning two related issues of social science methodology:

1. The merits of quantitative versus qualitative research methods.
2. The merits of experimental manipulation and structuring versus naturalistic observation.

Characteristically, those who have joined in this debate have been practitioners of one type of approach or the other. By emphasizing both quantitative and qualitative methods, and by exploring the relationship between various types of data as they explicate the same phenomena, we will attempt to broaden the base of knowledge concerning theis fundamental question.

Applied Research Implications: In addition to these potential contributions to knowledge of social processes, the Metro research program has a number of highly pertinent practical applications. Traditional urban secondary schools seem to be failing as legitimate social institutions (as reflected, for example, in the fact that 65% of them experienced some form of disruption in a recent four month period

'Urban Research Corporation, 1969). In response, alternative schools both inside and outside public school systems are being established at a quickly accelerating rate. However, the alternative institutions are closing at an alarming rate (every day, two new ones open, but one closes). Most have been hostile to research, and successes and failures have almost never been carefully studied. The Metro research program marks the first time to our knowledge that comprehensive research concerning both the processes and outcomes of education has been closely incorporated into the development of an alterna'ive school. For those involved in the implementation of alternative approaches to secondary education, the completed study will be useful in the following ways:

1. The clarification of issues and problems in each of the fifteen areas under study (for example, student involvement in institutional decision-making, effective use of community resources, and classroom process) will allow other alternative schools to strengthen both their planning and operation.

2. The specification of a series of possible models for the development of an alternative school will provide further guidance to other alternative programs.

3. The preparation of case studies based on Metro research data will be incorporated into technical assistance programs for working with other schools. For example, case studies of critical events in the school's development will clarify the functions that must be carried out for an alternative school to survive and some of the structural solutions that have proved successful; case studies of individual students will explicate the relationship between student social background and behavior in school; case studies of administrative procedures for registration, evaluation, etc. will suggest ways to carry out these functions that are consistent with the value-orientations of program participants.

The completed Metro research will clarify effective approaches to both the summative and formative evaluation of alternative school programs. In the light of the

increasing demand for alternative school programs and the high percentage of failures among existing alternative schools, it is imperative that effective methods for evaluating these schools be developed. Most approaches to educational evaluation have focused almost entirely on outcomes, and have ignored the educational processes that are related to these outcomes (Medley and Mitzell, 1965); they have largely been limited to designs and methods copied from the physical sciences; and they have emphasized summative evaluation to the exclusion of formative evaluation (Association for Supervision and Curriculum, 1967). The design and methods of the Metro research program seek to overcome these deficiencies.

Since long-term evaluations of several experimental schools are currently being initiated (through the Experimental Schools Division of the Office of Education and through the experimental school projects funded by several foundations), it seems particularly important that the implications of the Metro research program concerning new approaches to evaluation be analyzed and disseminated as soon as possible. Specifically, the Metro research program can be of use in clarifying evaluation procedures in several ways:

1. The Metro research program can clarify substantive areas that might be particularly important in designing a program evaluation and provide a set of specific issues in each area that might be studied in the evaluation.

2. Metro research will clarify questions of design and method involved in evaluating alternative schools. One purpose for using multiple evaluation techniques was to test and improve specific evaluation techniques and provide cross-checks on their validity. We will refine the techniques we have employed so that they can be applied to program evaluation and will investigate which techniques are most appropriate for which purposes.

3. The milieu of an alternative school raises specific problems for the researcher in the collection of data. We will clarify these specific problems and provide methods for dealing with them.

4. The Metro research program convinced those involved that there was a crucial need for formative evaluation in a developing alternative school. A number of techniques were attempted to provide feedback to program participants (including the mini-interviews and reports based on participant observation). Through these attempts, three major problems of formative evaluation were explored: collecting accurate information about topics of immediate concern, analyzing information quickly enough to influence relevant decisions, and presenting information in such a way that program participants consider it seriously. Specific approaches to each of these problems will result from the completed research program.

5. The Metro research program will also suggest specific models for summative evaluation which can be specifically tailored to the goals of a particular school and the educational approaches that they intend to use in reaching these goals.

6. A result of the Metro research that cuts across several of these specific areas of evaluation is the development of an information retrieval system that can indicate all relevant data about a specific student, a specific research issue, etc. Many administrative routines of the school (for example, course registration, attendance, and credits) can be incorporated into this system using specific procedures that have already been developed using Information Retrieval System 104 of Computer Corporation of America as discussed in the previous section.

Communicating Results of the Study: We will communicate results of particular aspects of the research of interest to various audiences (teachers and students in alternative schools, program evaluators, social scientists) through channels that will reach them most effectively. These channels will include communication networks currently developing between alternative schools, books, and scholarly journals. However, we are convinced that the most effective method for communicating results to other schools in a way that will strengthen their development is through direct technical assistance using ideas and case study materials that result from the research.

V. Necessary Financial Support

The Metro research program has been supported to this point through grants from the Research in Urban Education Program, University of Illinois at Chicago Circle. During the period September 1969 to June 1971, the Research in Urban Education Program has made the following financial contribution to the Metro research program:

Salaries of Full-time Research Personnel	$ 40,748
Additional Research Expenses	27,000
Total	$ 67,748

The budget for the Research in Urban Education Program was severely curtailed by the Illinois State Legislature for 1971-72 as part of general cutbacks in support for higher education. Nevertheless, the Research in Urban Education Program has continued to provide partial support for the Metro research program, including partial salary for two of the principal investigators, a full-time transcriber, and $2500 for additional research expenses. This support for the period September 1971 to June 1972 totals $20,550.

To complete the analysis of Metro research data as detailed in Section III and Appendix A by July 1972, additional financial support of $59,429 is requested. This support will allow the key members of the research team who have been working on the research program for the past two years to devote full time to the completion of data analysis. A breakdown of the required financial support is contcined in Appendix B.

It would be possible to complete a portion of the research analysis and reduce the level of support required. (For example, a particular topic could be analyzed or research could be completed using a particular methodology, or a particular

methodology examined.) A revised budget can be prepared in light of such considerations. However, it is our strong conviction that completion of all aspects of the research analysis is highly preferable to completing it piecemeal. Many of the implications of the study both as basic research and as applied research (outlined in Chapter IV) are dependent upon complete data analysis.

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Appendix A: A Summary Status Report on Research Project

(NOTE: * denotes steps that have not been completed as of November 1971.)

1-a. Achievement Test

(1) Experimental Sample I -- Testing Carried Out, February 1970.
-- Testing Carried Out, June 1970.
-- Testing Carried Out, June 1971.

(2) Control Sample I -- Testing Carried Out, April 1970.
-- Testing Carried Out, June 1971.

(3) Experimental Sample II-- Testing Carried Out, September 1970.
-- Testing Carried Out, June 1971.

(4) Key-punching of results completed.*

(5) Analysis of program effects (Analysis of Covariance, MESA 98 Computer Program).*

1-b. Attitude Questionnaire

(1) Areas of Testing determined, November 1969.

(2) Literature search for relevant subtests, December 1969.

(3) Development of additional subtests, December 1969.

(4) Trial-testing and revision of questionnaire, January 1970.

(5) Experimental Sample I -- Testing Carried Out, February 1970.
-- Testing Carried Out, June 1971.

(6) Control Sample I -- Testing Carried Out, April 1970.
-- Testing Carried Out, June 1971.

(7) Experimental Sample II-- Testing Carried Out, September 1970.
-- Testing Carried Out, June 1971.

(8) Data coded for all pretesting, June 1970.

(9) Data coded for all posttesting.*

(10) Analysis of test instruments to develop reliable subscales and factors (Test Score and Statistical Analysis, Version 2 Computer Program - TSSA2).*

(11) Analysis of program effects (Multivariate Analysis of Covariance, MESA 98 Computer Program).*

2. In-depth Interviews with Subsamples

(1) Areas determined, November 1969.

(2) Literature search for relevant interview schedules, December 1969.

(3) Trial-testing and revision of interview schedule, January 1970.

(4) Experimental Subsample I -- Interviews Carried Out, March 1970.
-- Interviews Carried Out, June 1971.

(5) Control Subsample I -- Interviews Carried Out, May 1970.
-- Interviews Carried Out, July 1971.

(6) Experimental Subsample II -- Interviews Carried Out, November 1970.
-- Interviews Carried Out, June 1971.

(7) Thirty-two interviews transcribed, October 1971.

(8) Remaining 64 interviews transcribed.*

(9) Preliminary analysis of transcripts to develop categories for content analysis and determine those portions that will be analyzed.*

(10) Formal content analysis of portions of the data by raters not previously involved in the research program.*

3. Observation and Informal Interviewing

(1) Alternative methods of observation attempted, varying on a continuum of structure. Most observation is of the semi-structured nature described in text. February 1970 to June 1970.

(2) Observation of Experimental Subsample I carried out. March 1970 to June 1970.

(3) Observation of Experimental Subsamples I and II carried out. September 1970 to June 1971.

(4) Participant observation and informal interviewing dealing with program contexts and issues. February 1970 to June 1971.

(5) Compu.er-based indexing system applied to observation data. February 1971 to June 1971.

(6) Preliminary analysis completed of student involvement in institutional decision-making, September 1971.

(7) Indexing of all data to be completed.*

(8) Qualitative analysis of data relevant to major topics of the research program. Emphasis on techniques of qualitative analysis developed by Bruyn (1966).*

4. Mini-Interview:

(1) Mini-interview technique developed. May and June 1970.

(2) Five sets of mini-interviews carried out and analyzed. June 1970 to June 1971.

5. Document File

(1) Documents collected. September 1969 to June 1971.

(2) Documents indexed according to major research topics. July 1971 to December 1971.

(3) Qualitative analysis of document file.*

Appendix B: Additional Research Funds Required for Completion of the Research Analysis (January 1, 1972 - June 30, 1972)

3 Co-Principal Investigators (vitas available separately)	$24,390	
1 Project Administrator	4,500	
3 Research Assistants	12,000	
Fringe Benefits (15%)	6,134	
		$47,024
Consultants		800
Key Punching		200
Computer Time and Computer Programming		1,500
Office Overhead (20%)		9,905
Total Funds Requested		$59,429

Appendix C

Schematic Plan for Long-Term Research on Metro Program. Data Collection.